

Claims

1. Method for examining the ocular fundus, whereby images of the ocular fundus are generated by means of a camera and/or an illumination unit and are subjected to an evaluation, characterized in that optimization of camera position
5 and/or illumination unit is controlled and/or regulated by detection certitude following automatic classification by a prespecifiable pattern recognition algorithm.

2. Method in accordance with claim 1, characterized in that data are provided that are characteristic for a disease, in that the data from said image
10 evaluation are correlated to said provided data, and in that depending on an agreement of the aforesaid data established during said correlation, parameters are generated that are given in a closed control circuit to the control unit of said camera and/or illumination unit in the sense that the established agreement becomes more clear.

15 3. Method in accordance with claim 1 or 2, characterized in that patterns contained in the generated image are compared to known patterns that correspond to at least one disease, in that depending on the data determined herein parameters are determined for new setting of said camera and/or said illumination unit, and in that subsequently by means of said parameters the
20 setting of said camera and/or illumination unit is changed by means of said parameters in a closed control circuit by means of a control unit.

4. Method in accordance with any claims 1 through 3, characterized in that automatic classification is performed by means of a pattern recognition

algorithm.

5 5. Method, in particular in accordance with any of claims 1 through 4,
characterized in that optimization with respect to detection certitude is controlled
and/or regulated by setting or position of said camera and/or illumination unit
preferably following automatic classification by a predetermined pattern
recognition algorithm.

6. Method in accordance with any of claims 1 through 5, characterized in
that said setting of said camera and/or said illumination unit is controlled and/or
regulated via a classification algorithm.

10 7. Method in accordance with any of claims 1 through 6, characterized in
that a laser is employed as camera and illumination unit, and the beam thereof
scans the ocular fundus, whereby the scanning area and/or the focus of the laser
beam is changed by means of the control unit the position of said laser and/or
the scanning area of said laser beam and/or the intensity of said laser beam
15 and/or in particular by means of optics.

8. Method in accordance with any of claims 1 through 7, characterized in
that data for pattern recognition are provided by means of a computer and/or the
pattern or data characteristic for a disease are provided.